

Claims

What is claimed is:

- 5 1. A method for managing a medical services network, comprising:
 - (a) receiving diagnostic data about a patient from a diagnostic service source,
wherein the diagnostic data is obtained by performing a diagnostic service on the
patient;
 - (b) sending the diagnostic data to an interpreter, wherein the interpreter interprets
10 the diagnostic data to generate an interpretation of the diagnostic data;
 - (c) receiving the interpretation from the interpreter; and
 - (d) transmitting via a network at least one of the interpretation and the diagnostic
data to a display.
- 15 2. The method of claim 1, wherein the diagnostic data is received from the
diagnostic service source utilizing the network.
3. The method of claim 1, wherein the diagnostic data is sent to the interpreter
utilizing the network.
- 20 4. The method of claim 1, wherein the interpretation is received from the
interpreter utilizing the network.
5. The method of claim 1, wherein the interpreter is a reading physician.
- 25 6. The method of claim 1, wherein the diagnostic service performed on the patient
involves magnetic resonance imaging, and wherein the diagnostic data

comprises imaging data obtained from the magnetic resonance imaging of the diagnostic service.

- 5 7. The method of claim 1, wherein the diagnostic data includes video data captured by a video camera during performance of the diagnostic service.
8. The method of claim 1, wherein the interpretation includes at least one of: a diagnosis based on the diagnostic data, annotations, selectable links to additional information relating the diagnostic data.
- 10 9. The method of claim 1, further comprising utilizing the network to provide real-time monitoring and support to the diagnostic service source relating to performance of the diagnostic service.
- 15 10. The method of claim 1, further comprising storing the diagnostic data and the interpretation in a database.
- 20 11. The method of claim 1, further comprising generating billing codes and related documentation, and transmitting the generated billing codes and related documentation to an insurer.
- 25 12. The method of claim 1, further comprising processing the diagnostic data prior to sending the diagnostic data to the interpreter.
13. The method of claim 1, wherein transmitting via the network at least one of the interpretation and the diagnostic data to the display further comprises: receiving a request for at least one of the interpretation and the diagnostic data from a viewer utilizing the network; requiring the viewer to select a reading category,

wherein each reading category has a set of links to additional information associated therewith; and displaying the interpretation and/or diagnostic data with the links associated with the selected reading category to the viewer via the network.

- 5 14. The method of claim 1, further comprising encrypting at least one of the interpretation and the diagnostic data prior to transmission to the display.
15. The method of claim 1, further comprising facilitating the scheduling of the diagnostic service.
- 10 16. The method of claim 15, wherein facilitating the scheduling of the diagnostic service comprises: receiving a request for a diagnostic service for a patient from a health care provider; notifying the diagnostic service source of the patient assignment utilizing the network; and instructing the patient to contact the
- 15 diagnostic service source to schedule an appointment for performing the diagnostic service.
17. The method of claim 16, further comprising enabling the patient to contact the diagnostic service source via the network in order to schedule the appointment
- 20 for performing the diagnostic service.
18. The method of claim 16, further comprising utilizing the network to direct advertising information to at least one of the health care provider and the patient.
- 25 19. The method of claim 16, further comprising notifying an insurer of the patient about the diagnostic service utilizing the network.

20. The method of claim 16, further comprising storing information relating to the patient assignment in a database.
21. The method of claim 20, further comprising permitting at least one of the health care provider, the patient, and the diagnostic service source to access the information stored in the database utilizing the network.
22. The method of claim 16, further comprising obtaining information relating to the patient utilizing the network after receipt of the request for the diagnostic service, and storing the obtained information relating to the patient in a database.
23. A system for managing a medical services network, comprising:
- (a) logic that receives diagnostic data about a patient from a diagnostic service source, wherein the diagnostic data is obtained by performing a diagnostic service on the patient;
 - (b) logic that sends the diagnostic data to an interpreter, wherein the interpreter interprets the processed diagnostic data to generate an interpretation of the diagnostic data;
 - (c) logic that receives the interpretation from the interpreter; and
 - (d) logic that transmits via a network at least one of the interpretation and the diagnostic data to a display.
24. The system of claim 23, wherein the diagnostic data is received from the diagnostic service source utilizing the network.
25. The system of claim 23, wherein the diagnostic data is sent to the interpreter utilizing the network.

26. The system of claim 23, wherein the interpretation is received from the interpreter utilizing the network.
27. The system of claim 23, wherein the network is capable of communication utilizing TCP/IP and IPX protocols.
28. The system of claim 23, wherein the diagnostic service performed on the patient involves magnetic resonance imaging, and wherein the diagnostic data comprises imaging data obtained from the magnetic resonance imaging from the diagnostic service.
29. The system of claim 23, wherein the diagnostic data includes video data captured by a video camera during performance of the diagnostic service.
30. The system of claim 23, wherein the interpretation includes at least one of: a diagnosis based on the diagnostic data, annotations, and selectable links to additional information relating the diagnostic data.
31. The system of claim 23, further comprising logic that provides over the network real-time monitoring and support to the diagnostic service source relating to performance of the diagnostic service.
32. The system of claim 23, further comprising logic that stores the diagnostic data and the interpretation in a database.
33. The system of claim 23, further comprising logic that generates billing codes and related documentation, and logic that transmits the generated billing codes and related documentation to an insurer.

34. The system of claim 23, further comprising logic that processes the diagnostic data prior to sending the diagnostic data to the interpreter.
- 5 35. The system of claim 23, wherein the logic for transmitting via the network at least one of the interpretation and the diagnostic data to the display further comprises: logic that receives a request for at least one of the interpretation and the diagnostic data from a viewer utilizing the network; logic that requires the viewer to select a reading category, wherein each reading category has a set of
- 10 links to additional information associated therewith; and logic that displays the interpretation and/or diagnostic data with the links associated with the selected reading category to the viewer via the network.
- 15 36. The system of claim 23, further comprising logic that encrypts at least one of the interpretation and the diagnostic data prior to transmission to the display.
37. The system of claim 23, further comprising logic that schedules performance of the diagnostic service.
- 20 38. The system of claim 37, wherein the scheduling logic comprises: logic that receives a request for a diagnostic service for a patient from a health care provider; logic that notifies the diagnostic service source of the patient assignment utilizing the network; and logic that instructs the patient to contact the diagnostic service source to schedule an appointment for performing the
- 25 diagnostic service.

39. The system of claim 37, further comprising logic that enables the patient to contact the diagnostic service source via the network in order to schedule the appointment for performing the diagnostic service.
- 5 40. The system of claim 37, further comprising logic that uses the network to direct advertising information to at least one of the health care provider and the patient.
41. The system of claim 37, further comprising logic that notifies an insurer of the patient about the diagnostic service utilizing the network.
- 10 42. The system of claim 37, further comprising logic that stores information relating to the patient assignment in a database.
43. The system of claim 42, further comprising logic that permits at least one of the health care provider, the patient, and the diagnostic service source to access the information stored in the database utilizing the network.
- 15 44. The system of claim 37, further comprising logic that obtains information relating to the patient utilizing the network after receipt of the request for the diagnostic service, and logic that stores the obtained information relating to the patient in a database.
- 20 45. A computer program product for managing a medical services network, comprising:
- 25 (a) computer code for receiving diagnostic data about a patient from a diagnostic service source, wherein the diagnostic data is obtained by performing a diagnostic service on the patient;

- (b) computer code for sending the diagnostic data to an interpreter, wherein the interpreter interprets the processed diagnostic data to generate an interpretation of the diagnostic data;
- (c) computer code for receiving the interpretation from the interpreter; and
- 5 (d) computer code for transmitting via a network at least one of the interpretation and the diagnostic data to a display.

46. The computer program product of claim 45, wherein the diagnostic data is received from the diagnostic service source utilizing the network.
- 10 47. The computer program product of claim 45, wherein the interpretation is received from the interpreter utilizing the network.
48. The computer program product of claim 45, wherein the diagnostic service performed on the patient involves magnetic resonance imaging, and wherein the diagnostic data comprises imaging data obtained from the magnetic resonance imaging of the diagnostic service.
- 15 49. The computer program product of claim 45, wherein the diagnostic data includes video data captured by a video camera during performance of the diagnostic service.
- 20 50. The computer program product of claim 45, wherein the interpretation includes at least one of: a diagnosis based on the diagnostic data, annotations, selectable links to additional information relating the diagnostic data.
- 25 51. The computer program product of claim 45, further comprising computer code for storing the diagnostic data and the interpretation in a database.

52. The computer program product of claim 45, further comprising computer code for generating billing codes and related documentation, and computer code for transmitting the generated billing codes and related documentation to an insurer.

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53. The computer program product of claim 45, further comprising computer code for processing the diagnostic data prior to sending the diagnostic data to the interpreter.

10 54. The computer program product of claim 45, wherein the computer code for transmitting via the network at least one of the interpretation and the diagnostic data to the display further comprises: computer code for receiving a request for at least one of the interpretation and the diagnostic data from a viewer utilizing the network; computer code for requiring the viewer to select a reading category, 15 wherein each reading category has a set of links to additional information associated therewith; and computer code for displaying the interpretation and/or diagnostic data with the links associated with the selected reading category to the viewer via the network.

20 55. The computer program product of claim 45, further comprising computer code for encrypting at least one of the interpretation and the diagnostic data prior to transmission to the display.

25 56. The computer program product of claim 45, further comprising computer code for facilitating the scheduling performance of the diagnostic service.

57. The computer program product of claim 56, wherein the computer code for facilitating the scheduling performance of the diagnostic service comprises:

computer code for receiving a request for a diagnostic service for a patient from a health care provider; computer code for notifying the diagnostic service source of the patient assignment utilizing the network; and computer code for instructing the patient to contact the diagnostic service source to schedule an appointment for performing the diagnostic service.

58. The computer program product of claim 57, further comprising computer code for enabling the patient to contact the diagnostic service source via the network in order to schedule the appointment for performing the diagnostic service.

59. The computer program product of claim 57, further comprising computer code for utilizing the network to direct advertising information to at least one of the health care provider and the patient.

60. The computer program product of claim 57, further comprising computer code for notifying an insurer of the patient about the diagnostic service utilizing the network.

61. The computer program product of claim 57, further comprising computer code for storing information relating to the patient assignment in a database.

62. The computer program product of claim 61, further comprising computer code for permitting at least one of the health care provider, the patient, and the diagnostic service source to access the information stored in the database utilizing the network.

63. The computer program product of claim 57, further comprising computer code for obtaining information relating to the patient utilizing the network subsequent

receipt of the request for the diagnostic service, and computer code for storing the obtained information relating to the patient in a database.

64. A computer-based patient medical record comprising:
- 5 (a) a digitally encoded patient image;
- (b) at least one clickable image map placed over said patient image; and
- (c) additional information linked to said clickable image map, whereby selection of said clickable image map by a user of said computer-based patient medical record retrieves said additional information.
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65. The computer-based patient medical record of claim 64 wherein said computer-based patient medical record further comprises at least one graphical symbol superimposed on said digitally encoded patient image.
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66. The computer-based patient medical record of claim 65 wherein said graphical symbol is stored digitally within said digitally encoded patient image.
67. The computer-based patient medical record of claim 65 wherein said graphical symbol is stored as an overlay in a separate file associated with said digitally encoded patient image.
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68. The computer-based patient medical record of claim 64 wherein said additional information is stored in alternative sets and wherein data from one of said alternative sets is provided to said user according to the user's selection.

69. A computer-based user interface for accessing a computer-based medical record having a digitally encoded patient image, at least one clickable image map placed over said patient image, and additional information linked to said clickable image map, said computer-based user interface comprising:
- 5 (a) a computer screen for display of said computer-based medical record;
- (b) a user input whereby a user can access said additional information linked to said clickable image map; and
- (c) a control form whereby said user can select the format or content of said additional information which said user accesses through said link to said clickable image map.
- 10 70. The computer-based user interface of claim 69 wherein said user input is a computer mouse controlling a cursor's movement on said computer screen.
- 15 71. The computer-based user interface of claim 69 wherein said control form is a pop-up menu accessed by clicking on said clickable image map.
72. The computer-based user interface of claim 69 wherein said user input is selected from the group of input mechanisms consisting of: mouse; trackball; touch tablet; sterile touch tablet; light pointer; optical three dimensional pointing system; ultrasonic three dimensional pointing system; voice recognition; and retinal position sensing.
- 20 73. The computer-based user interface of claim 69 and further providing HTML actions initiated by passing selecting said clickable image map.
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74. The computer-based user interface of claim 73 wherein said HTML actions are selected from the group consisting of: displaying additional information about the portion of the digitally encoded patient image associated with said clickable image map; highlighting said portion of the digitally encoded patient image associated with said clickable image map; driving a floating box associated with on on-screen cursor; triggering animations; causing a new window to open on said computer screen; and bringing up a pop-up menu which presents further options to the user.
75. The computer-based user interface of claim 73 and further comprising HTML selection features for activating broadly-applicable functions.
76. The computer-based user interface of claim 75 wherein said broadly-applicable functions are selected from the group consisting of: an internal word-search capability; an external web-search capability; a live medical record site map; and user help information.
77. A method for gathering patient data comprising:
- (a) providing patient measuring equipment;
 - (b) establishing a web-based camera focused in the proximity of said patient measuring equipment whereby the position of a patient is within said camera's field of view;
 - (c) establishing a web-based monitor positioned remotely from said patient measuring equipment and connected to said web-based camera through an web-based connection;
 - (d) establishing a communication path from said remotely positioned web-based monitor to the area in which the patient measuring equipment is located whereby

a physician can direct the manner in which the patient measuring is being conducted.

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78. The method of claim 77 wherein said patient measuring comprises patient imaging.
79. The method of claim 77 and further comprising a web-based communication link between the measuring equipment and the web-based monitor whereby said physician can further monitor the measurements being conducted.
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80. A method of composing a computer-based patient medical record comprising:
- (a) entering information about a patient in a database to create an initial computer-based patient record;
- (b) associating web-based programming commands with at least portions of said initial computer-based patient record to create an enhanced computer-based patient record.
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81. The method of claim 80 and further comprising the step of addition graphical patient information to said initial computer-based patient record and further associating web-based programming commands with at least portions of said graphical patient information.
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82. The method of claim 81 wherein said graphical patient information is a diagnostic image of some aspect of the patient's anatomy.
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83. The method of claim 82 wherein said web-based programming commands are hyperlinks associated with certain areas within said diagnostic image.

84. The method of claim 82 and further comprising the step of adding graphical images to said diagnostic image.
- 5 85. The method of claim 84 where said web-based programming commands are hyperlinks associated with said graphical images.
86. The method of claim 80 wherein a referring physician creates said initial computer-based patient record.
- 10 87. The method of claim 86 wherein a diagnostic imaging source provides a diagnostic image of some aspect of the patient's anatomy.
88. The method of claim 87 wherein a reading physician add said diagnostic image to said initial computer-based patient record and further adds graphical images to said diagnostic image.
- 15 89. The method of claim 88 wherein a technician adds web-based programming commands which are associated with said diagnostic image.
- 20 90. The method of claim 80 wherein said web-based programming commands are hyperlinks to said at least portions of said initial computer-based patient record and wherein said hyperlinks provide further information about the linked portions of said patient records.